*Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ PD:\_\_\_\_\_\_*

HW#77: FactoringHW

Honors Geometry

Due: Monday, February 8th

Failure to show all work will result in a LaSalle.

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| 1. A school’s rectangular athletic fields currently have a length of 125 yards and a width of 75 yards. The school plans to expand both the length and the width of the fields by *x* yards. Draw a picture of the newly expanded athletic field.    1. What polynomial (in standard form) represents the area of the expanded athletic field? | |
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| 1. A square green rug has a blue square in the center. The side length of the blue square is *x* inches. The width of the green band that surrounds the blue square is 6 inches. What is the area of the green band? Draw a labeled picture to represent this situation before solving this problem. | |
| 1. Factor: | 1. Factor: |
| 1. Factor: |  |
| 1. Factor: | 1. Factor: |
| 1. A rectangular skateboard park has an area of . What are the possible dimensions of the park? Use factoring to determine your answer. | |
| 1. A rectangular swimming pool is twice as long as it is wide. A small concrete walkway surrounds the pool. The walkway is a constant 2 feet wide and has an area of 196 square feet. Find the dimensions of the pool. | |
| 1. The length of a rectangular window is 5 feet more than its width, *w*. The area of the window is 36 square feet. Determine an equation that could be used to find the dimensions of the window. Draw a labeled picture before solving. | |
| 1. The area of a rectangle is twice the area of a square. If the rectangle is 6 inches long, and the width of the rectangle is the same as the length of a side of the square, find the dimensions of both the rectangle and the square. Draw labeled pictures of the rectangle and the square before solving. | |